

# PATENT ABSTRACTS OF JAPAN

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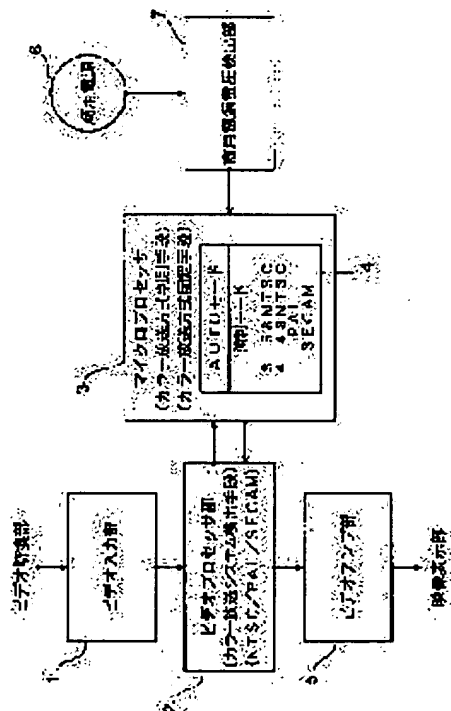
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## (54) COLOR-SYSTEM DISCRIMINATING SYSTEM

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To improve reliability of color broadcasting system discrimination by suppressing the occurrence of malfunctions in the color broadcasting system discrimination.

**SOLUTION:** This commercial source voltages of countries where video display devices are used are different from country by country, so that the commercial source voltage of the country where a video display device is used is detected and the detected result is added to a discrimination factor for the color broadcasting system, thereby automatically deciding the color broadcasting system which is different by countries.



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**CLAIMS**

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[Claim(s)]

[Claim 1] The color method distinction system characterized by what said graphic display device distinguishes the color broadcasting format of said video signal [ / based on the detection result of the source-power-supply electrical potential difference supplied to a graphic display device, and the color broadcasting format detected from said video signal ] for in the color method distinction system which distinguishes the color broadcasting format with which video signals differ.

[Claim 2] The source-power-supply electrical-potential-difference detecting element which detects the source-power-supply electrical potential difference supplied to a graphic display device, A color broadcast system detection means to detect a color broadcasting format from a video signal, The color broadcast system of the country which uses said source-power-supply electrical potential difference detected by said source-power-supply electrical-potential-difference detecting element, The coincidence judging with said color broadcasting format which said color broadcast system detection means detected is performed. The color method distinction system according to claim 1 characterized by having a color broadcasting format distinction means by which said graphic display device distinguishes the color broadcasting format of said video signal [ / based on this coincidence judging result ].

[Claim 3] The color method distinction system according to claim 2 characterized by to have a color broadcasting format fixed means has the AUTO mode which carries out automatic distinction of the color broadcasting format with which video signals differ, and the fixed mode which fix a color broadcasting format, will change said AUTO mode to said fixed mode if a color broadcasting format is in agreement as a result of the coincidence judging which said color broadcasting format distinction means performed in said AUTO mode, and fix to said congruous color broadcasting formats.

[Claim 4] The color method distinction system according to claim 3 characterized by changing from said fixed mode to said AUTO mode, and canceling immobilization of the color broadcasting format by said color broadcasting format fixed means if the color broadcasting format of a video signal is changed.

[Claim 5] The color method distinction system according to claim 3 characterized by repeating AUTO mode when the result of the coincidence judging which said color broadcasting format distinction means performed is not obtained.

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**DETAILED DESCRIPTION**

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**[Detailed Description of the Invention]****[0001]**

**[Field of the Invention]** This invention relates to the color method distinction system which distinguishes automatically the color broadcasting format which changes with broadcasting formats of each country in a graphic display device.

**[0002]**

**[Description of the Prior Art]** In the graphic display device of the multisystem correspondence for the whole world, a different color broadcasting format generally adopted in each country is automatically distinguished by the video processor. As a color method distinction system which performs automatic distinction of such a color broadcasting format, there are "a color-television receiving set using a selection circuitry of operation and it" indicated by JP,7-123432,A, "channel channel selection equipment" indicated by JP,9-149422,A, etc.

**[0003]** In the former color method distinction system, it has the 1st and 2nd oscillator circuit for chrominance subcarriers corresponding to the 1st of either PAL or NTSC, and the 2nd color broadcasting format. When said television signal of the 1st or the 2nd [ said ] color broadcasting format is inputted, While creating the 1st criteria chrominance-subcarrier signal for color system detection and the 2nd criteria chrominance-subcarrier signal for APC detection (for color synchronization) corresponding to each burst signal For example, the operating state of said 2nd oscillator circuit is detected, according to the detecting signal, it turns on, off control of the actuation of the chrominance-signal processing circuit corresponding to the 3rd color broadcasting format of an SECAM system is carried out, and correspondence in the color broadcasting format corresponding to the whole world is enabled.

**[0004]** Moreover, in the latter color method distinction system, it is set as color auto at the time of the channel number input state at the time of a channel channel selection, and the color broadcasting format adopted at home currently the graphic display device used is distinguished automatically.

**[0005]**

**[Problem(s) to be Solved by the Invention]** Since the conventional color method distinction system was constituted as mentioned above, when video signals, such as a non-standard signal, were inputted, it had the technical problem which malfunction may be caused about color broadcasting format distinction, and is asked for the improvement of such malfunction, and the improvement in dependability about color broadcasting format distinction.

**[0006]** Made in order that this invention may solve the technical problem which such a conventional color method distinction system has, the purpose of this invention controls generating of malfunction in the case of color broadcasting format distinction, and is to offer the color method distinction system which raised the dependability about color broadcasting format distinction.

**[0007]**

**[Means for Solving the Problem]** The color method distinction system concerning this invention is characterized by said graphic display device distinguishing the color broadcasting format of said video

signal [ / based on the detection result of the source-power-supply electrical potential difference supplied to a graphic display device, and the color broadcasting format detected from said video signal ] in the color method distinction system which distinguishes the color broadcasting format with which video signals differ.

[0008] The color method distinction system of this invention is adding the detection result of the source-power-supply electrical potential difference supplied to a graphic display device to the distinction conditions of the color broadcasting format of a video signal, and realizes control of generating of malfunction in the case of color broadcasting format distinction, and improvement in the dependability about color broadcasting format distinction.

[0009]

[Embodiment of the Invention] Hereafter, one gestalt of operation of this invention is explained. The color method distinction system of this invention concerning the gestalt of this operation In case the color broadcasting format which changes with broadcasting formats of each country in the graphic display device sold for the whole world is distinguished automatically Paying attention to the source-power-supply electrical potential differences of the country where that graphic display device is used differing for every country, the source-power-supply electrical potential difference of the country where that graphic display device is used is detected, and it is characterized by adding this detection result to the distinction element of a color broadcasting format.

[0010] Drawing 1 is the block diagram showing the color method distinction structure of a system of the gestalt of this operation. This color method distinction system is equipped with the video input section 1, the video processor section (color broadcast system detection means) 2, a microprocessor (a color broadcasting format distinction means, color broadcasting format fixed means) 3, the video amplifier section 5, the source-power-supply electrical-potential-difference detecting element 7, etc. Moreover, a microprocessor 3 has the AUTO mode and the compulsive mode (fixed mode) which are set up by the user as color system selection mode, and is compulsorily fixed to methods, such as 3.58NTSC, 4.43NTSC, and PAL, SECAM, as a color broadcasting format in compulsive mode.

[0011] The video input section 1 inputs the video signal of the color broadcasting format adopted at home the graphic display device used. The video processor section 2 supplies the video signal with which signal processing ended to the video amplifier section 5 while it detects and distinguishes color broadcasting formats, such as NTSC/PAL/SECAM, based on the video signal inputted from said video input section 1 and supplies the color broadcast system distinction signal S1 of a color broadcasting format to a microprocessor 3. Processing about detection of the color broadcasting format in this video processor section 2 is performed by the well-known technique.

[0012] A microprocessor 3 outputs the color broadcast system fixed signal S3 for fixing the color broadcasting format of the digital disposal circuit of the video processor section 2 to the video processor section 2 concerned while controlling each part of this color method distinction system. Moreover, this microprocessor 3 is equipped with the A/D converter for incorporating the level of the source-power-supply electrical-potential-difference detecting signal S2 outputted from the source-power-supply electrical-potential-difference detecting element 7 mentioned later as digital value etc. If a color broadcasting format is furthermore detected and judged in the video processor section 2 in AUTO mode by this microprocessor 3 Perform the coincidence judging with the color broadcasting format and the color broadcasting format of the country which uses the source-power-supply electrical potential difference judged based on the output of said source-power-supply electrical-potential-difference detecting element 7, and when in agreement It shifts to compulsive mode (fixed mode) from said AUTO mode, and the color broadcasting format in the graphic display device is fixed to said congruous color broadcasting formats. The video amplifier section 5 amplifies the video signal which the video processor section 2 outputs with the color broadcasting format fixed based on said color broadcast system fixed signal S3, and outputs it to the graphic display section which is not illustrated.

[0013] The source-power-supply electrical-potential-difference detecting element 7 pressures partially the rectification electrical potential difference of a source power supply 6 to 1/70, and supplies it to a microprocessor 3 as a source-power-supply electrical-potential-difference detecting signal S2. 1/70 of

the rectification electrical potential difference of this source power supply 6 of partial pressure electrical potential differences -- the case of AC100V -- about 2.2 -- the case of V or less and AC120V -- about 2.2 -- in the case of V-2.7V, and AC220V, in the case of 4.0V-4.5V, and AC240V, it becomes more than 4.6V.

[0014] Next, actuation is explained. The video processor section 2 detects a color broadcasting format with the video signal inputted from the video input section 1, and supplies the color broadcast system detecting signal S1 to a microprocessor 3. On the other hand, the source-power-supply electrical-potential-difference detecting element 7 pressures partially the rectification electrical potential difference of a source power supply 6 to 1/70, and supplies it to a microprocessor 3 as a source-power-supply electrical-potential-difference detecting signal S2. the case where the source-power-supply electrical potential difference of the partial pressure electrical potential difference of the rectification electrical potential differences 1/70 of said source power supply 6 in this case is AC100V -- about 2.2 -- V or less and AC120V -- about 2.2, by 4.0V-4.5V, and AC240V, it becomes more than 4.6V V-2.7V, and AC220V.

[0015] For example, as shown in drawing 2, it is shown that the color broadcast system detecting signal S1 detected the color broadcasting format of 3.58NTSC, and color broadcasting format judging actuation of the microprocessor 3 in case the source-power-supply electrical-potential-difference detecting signal S2 is less than [ 2.2V ] is shown by the flow chart of drawing 3.

[0016] Namely, if AUTO mode is set up by the user (a step ST 1, a step ST 2), a microprocessor 3 The color broadcasting format of the country which uses the source-power-supply electrical potential difference corresponding to the level based on the level of the source-power-supply electrical-potential-difference detecting signal S2 If refer to, it reads from the table TBL shown in drawing 4, and it judges whether the color broadcasting format which this read color broadcasting format and the color broadcast system detecting signal S1 show is in agreement (step ST 3), consequently is in agreement It shifts to fixed mode and a color broadcasting format is fixed to said congruous color broadcasting formats (step ST 4).

[0017] That is, since the source-power-supply electrical-potential-difference detecting signal S2 is less than [ 2.2V ], on the table TBL shown in drawing 4, a source-power-supply electrical potential difference is A countries (Japan) which are 100V, and it becomes clear that it is the color broadcasting format of 3.58NTSC. In this case, since the color broadcasting format of said 3.58NTSC which became clear, and the color broadcasting format which the color broadcast system detecting signal S1 shows are in agreement, it shifts to fixed mode from AUTO mode, fixes a color broadcasting format to 3.58NTSC of said congruous color broadcasting formats, and supplies a 3.58NTSC fixed signal to the video processor 2 as a color broadcast system fixed signal S3 further (step ST 5).

[0018] Consequently, generating of malfunction is controlled even if it is the case where the video signal which had caused former malfunction, such as non-standard, is inputted into the video input block 1.

[0019] In addition, when the color broadcasting format of the inputted video signal is changed, a microprocessor 3 is returned to the AUTO mode in which the user has set up selection of a color broadcasting format from the fixed signal which was being outputted till then.

[0020] Moreover, in a step ST 3, when a coincidence judging cannot be performed by each detecting signal of the color broadcast system detecting signal S1 and the source-power-supply electrical-potential-difference detecting signal S2, either, the judgment of the color broadcasting format by the AUTO mode which return and a user have set to a step ST 2 from a step ST 3 is repeated.

[0021] As mentioned above, as explained, according to the gestalt of this operation, selection of a color broadcasting format is performed in the AUTO mode by a user's selection, and it sets in the configuration depending on automatic distinction of the color broadcasting format by the video processor section 2. By forming the source-power-supply electrical-potential-difference detecting element 7, by the source-power-supply electrical-potential-difference detecting element 7 The domestic source-power-supply electrical potential difference for which the graphic display device is used is detected, and the source-power-supply electrical-potential-difference detecting signal S2 is supplied to a microprocessor 3. In a microprocessor 3 The color broadcasting format of the country which is using the

source-power-supply electrical potential difference which the source-power-supply electrical-potential-difference detecting signal S2 shows, Compare the color broadcasting format which the video processor section 2 detected, and the color broadcasting format adopted at home currently the graphic display device used is limited. A microprocessor 3 selection of the color broadcasting format chosen in AUTO mode For example, since it fixes to compulsive modes (fixed mode), such as 3.58NTSC, Many noises are included or it is effective in the ability to offer a color method distinction system with the high dependability which can control generating of the incorrect judging by having distinguished the color broadcasting format only in the video processor section 2 when the non-standard signal under the environment where field strength falls etc. is inputted, and malfunction.

[0022]

[Effect of the Invention] As mentioned above, according to this invention, by adding the detection result of the source-power-supply electrical potential difference supplied to a graphic display device on the occasion of distinction of the color broadcasting format of a video signal, generating of malfunction about distinction of a color broadcasting format can be controlled, and the dependability about color broadcasting format distinction can be improved.

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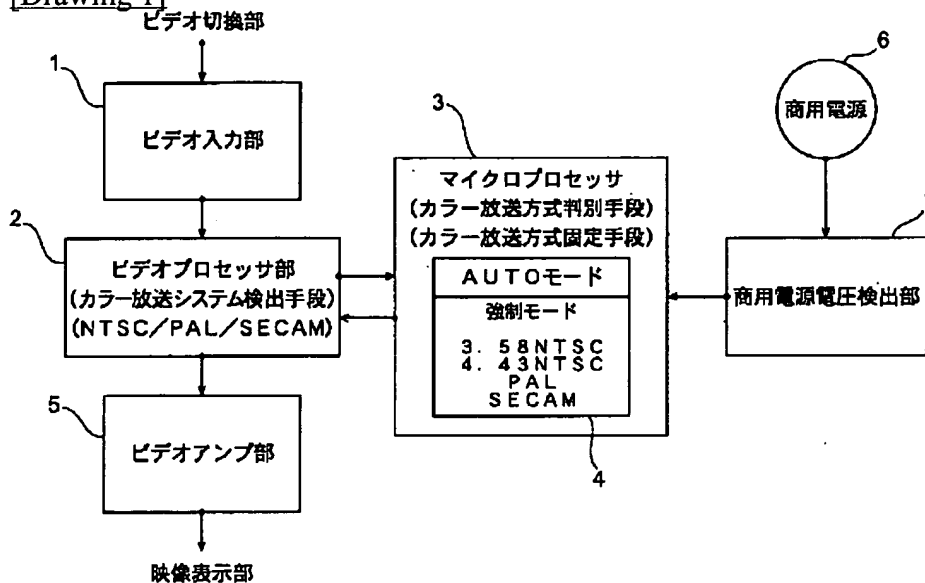
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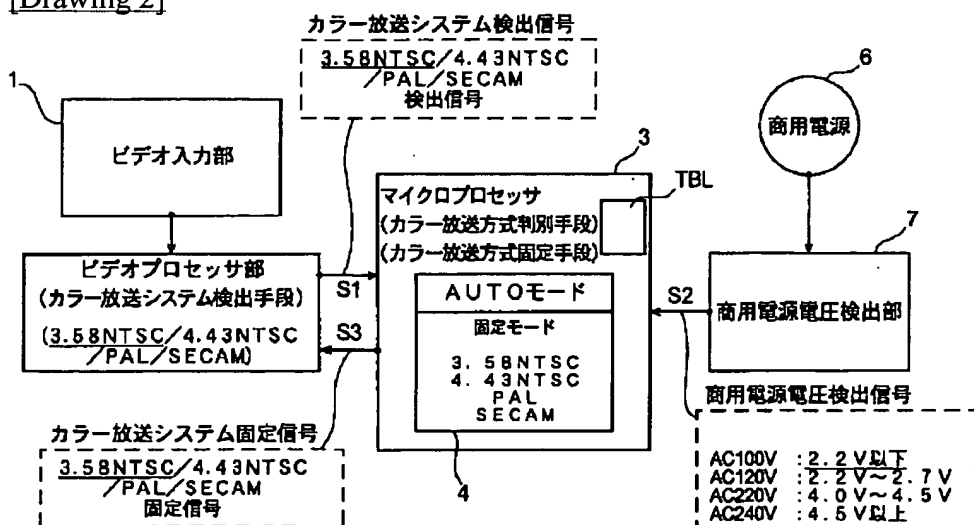
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## DRAWINGS

[Drawing 1]

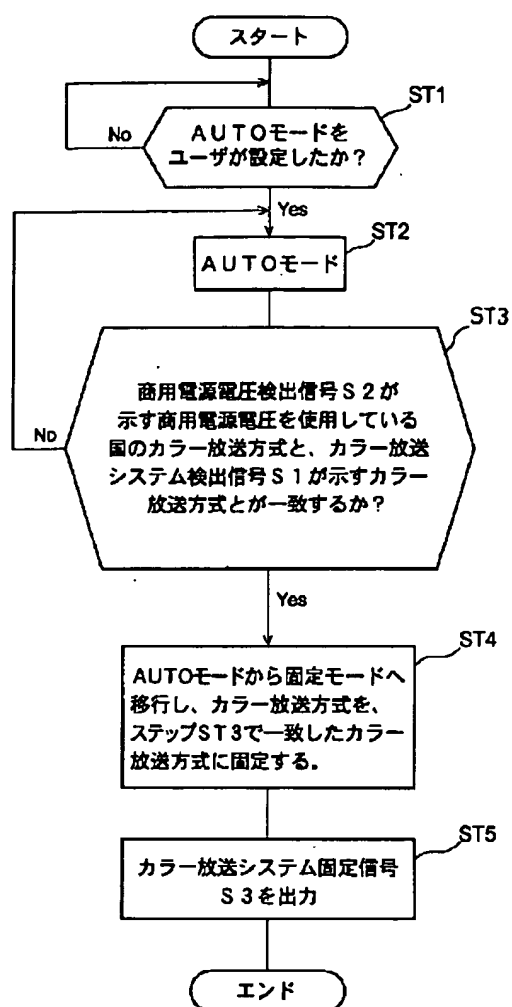


[Drawing 2]



[Drawing 3]





[Drawing 4]

国 名	A C 電 源 電 圧	商 用 電 源 電 圧 検 出 信 号 S 2	カ ラ ー 放 送 方 式
A 国	AC100	2.2 V 以下	NTSC
C 国	AC120V	2.2 V ~ 2.7 V	NTSC
E 国	AC220V	4.0 V ~ 4.5 V	PAL
F 国	AC240V	4.5 V 以上	SECAM

TBL

[Translation done.]